

**Remarks/Arguments**

Entry of the following response, as well as reconsideration and withdrawal of the rejections of record and finality thereof, are respectfully requested.

***Summary of Status of Amendment and Office Action***

In the present amendment, no claims are added, cancelled, or amended. Therefore, claims 1-6, 8-11, 15, 16, 18, 19, 21-52, 54-56, 58-71, 77-82, 84-86, 88-106, 108-115, 117 and 118 are pending in the application, with claims 1, 47, 77, and 98 being independent.

In the Final Office Action dated December 20, 2005, all claims are rejected under 35 U.S.C. § 103 (a) as being unpatentable over U.S. Patent No. 5,698,305 (hereinafter "SUZUKI").

***Information Disclosure Statement***

Applicants note that they have not yet received an initialed copy of the Form PTO-1449 submitted with the Supplemental Information Disclosure Statement filed February 1, 2001.

For the Examiner's convenience, a copy of the above-noted Form PTO-1449 is being submitted herewith. Applicants again request that the Examiner send Applicants an initialed copy of the Form PTO-1449 in the next communication from the U.S. Patent and Trademark Office, so that the Examiner's consideration of the disclosure statement is clearly reflected in the record.

***Substance of the February 28 Interview***

Applicants thank the Examiner for the interview held on February 28, 2006, regarding the Final Office Action.

During the Interview, the Applicants' representative pointed out that neither the July 18, 2005 Office Action, nor the December 20, 2005 Final Office Action addressed each individual claim, or each limitation of all the claims. In particular, it was pointed out that the current claims are directed toward a three-component system that is not disclosed in the cited SUZUKI document. Further, it was pointed out that the application contains claims directed to various substrates, and that SUZUKI is limited to newsprint. It was also pointed out that some claims specifically recite inclusion of a fluoacid, that some claims specifically recite a metal substrate, and that some claims recite proportions of ingredients clearly not disclosed or suggested in SUZUKI.

It was also pointed out that the Office Actions do not establish any motivation to modify SUZUKI to arrive at the presently-claimed subject matter, especially where SUZUKI limits itself to newsprint, and where the sole mention of reactive sizing agents in SUZUKI places the reactive sizing agents in the base newsprint, not in the coating composition.

It was pointed out that the rejections of record are devoid of any documentary evidence relating to each and every limitation in the claims, and that it was improper for an Office Action to make general statements about what is in the prior art without documentary support. It was requested, therefore, that the Examiner either provide such documentary evidence, or withdraw the rejections.

The Examiner said that such points should be made in a written response. Applicants' representative noted that these arguments were already made in the October 12, 2005 Amendment in response to the non-final Office Action of July 18, 2005. It was also noted that these arguments were not addressed in the December 20, 2005 final Office Action, which still did not discuss every limitation of every claim, and still did not discuss a lack of motivation in the prior art for arriving at Applicants' claimed subject matter.

Nevertheless, the Examiner maintained that the arguments should be made yet again. This Response is submitted in view of that request.

***Request for Withdrawal of Finality of Office Action***

It is requested that the finality of the rejection dated December 20, 2005 be withdrawn because the Office Action is incomplete. The Office Action is incomplete because it does not address every limitation of every claim, and disregards Applicants' arguments made in the October 12, 2005 Amendment.

Thus, once again Applicants respectfully request that each and every feature recited in Applicants' claims be specially referenced in SUZUKI to support an anticipation rejection.

In the event that finality is maintained, it is requested that the Examiner point out where each limitation of each claim is shown in the cited prior art.

***Response to Rejection under 35 USC § 103 (a)***

Claims 1-6, 8-11, 15, 16, 18, 19, 21-52, 54-56, 58, 71, 77-82, 84, 86, 88-106, 108-115, 117 and 118 are rejected under 35 U.S.C. 103(a) as being unpatentable over SUZUKI.

It is respectfully submitted that the arguments made in the Amendment dated October 12, 2005, adequately establish the patentability of all of the pending claims, and the October 12 Amendment is, therefore, expressly incorporated herein by reference.

Applicants note that the rejection makes assertions of obviousness without providing any supporting documentary evidence. For example, the rejection of July 18, 2005 explicitly states that the "Examiner takes the Official position the use of other substrates not specifically disclosed [in SUZUKI] is well within the limit of skills of the ordinary practitioner and hence would have been obvious." The rejection of December 20, 2005 paraphrases this position.

Applicants respectfully submit that an obviousness rejection cannot be supported by mere allegations that it would have been obvious to arrive at Applicants' invention. The Examiner is reminded that a rejection must be based upon documentary evidence, and not merely official notice. In this regard, the Examiner's attention is directed to MPEP 2144.03 wherein it is noted that, "If the applicant traverses such an assertion the examiner should cite a reference in support of his or her position." In the instant situation, Applicants respectfully submit that the rejections are improper as not utilizing documentary evidence to support the positions taken in the rejection. The rejection merely makes an assertion of obviousness, but does not support this assertion by documentary evidence. There is not the slightest documentary evidence to arrive at Applicants' disclosed and claimed invention.

Moreover, attention is directed to In re Ahlert and Kruger, 424 F.2d 1088, 165 USPQ 418, 420-421 (CCPA 1970), which is cited in MPEP 2144.03. In Ahlert, at 165

USPQ 421, it is stated that:

Typically, it is found necessary to take notice of facts which may be used to supplement or clarify the teaching of a reference disclosure, perhaps to justify or explain a particular inference to be drawn from the reference teaching. The facts so noticed serve to fill in the gaps which might exist in the evidentiary showing made by the examiner to support a particular ground of rejection. We know of no case in which facts judicially noticed comprised the principal evidence upon which a rejection was based or were of such importance as to constitute a new ground of rejection when combined with the other evidence previously used.

In the instant case, the rejection improperly makes an Official Notice, not to “fill in the gaps”, but to provide a complete reasoning behind modification of the primary reference. Accordingly, Applicants submit that it is improper to make such naked assertion in the instant case, and a reference must be utilized in the rejection that not only discloses Applicants’ recited concept, but also provides motivation for modifying SUZUKI to include Applicants’ recited features. This would afford Applicants an opportunity to address issues of lack of motivation for combining separate disclosures as well as an opportunity to argue against any asserted combination.

Thus, in the event that the rejections are maintained, Applicants request that the Examiner provide documentary evidence directed to every limitation of every claim not disclosed by SUZUKI.

It is respectfully requested that the next communication from the Examiner, either allow all claims, or else separately address each point made in each subheading below:

***The Office Action Does Not Establish A Prima Facie Case of Obviousness At Least Because There Would Have Been No Motivation to Modify SUZUKI to Arrive at the Presently Claimed Compositions and Methods***

Applicants respectfully submit that the rejection does not establish a *prima facie* case of obviousness. It would not have been obvious to modify SUZUKI to arrive at the presently claimed invention, and the person of ordinary skill in the art reading SUZUKI would not be motivated to include or use the presently-recited moisture barrier component (C).

In this regard, Applicants remind the Examiner that the claimed subject matter includes an aqueous composition comprising: (A) at least one water-soluble component comprising at least one functional group that undergoes a crosslinking reaction; (B) at least one film-forming polymer; and (C) at least one component which provides at least one of moisture barrier properties and/or vapor barrier properties greater than that provided by a combination of components (A) and (B) alone. Claimed subject matter is also directed toward such compositions additionally comprising fluoacids; as well as methods of preparing and using the compositions, including various products and substrates.

SUZUKI does not disclose or suggest presently claimed compositions comprising component (C), or methods of using such compositions comprising component (C). It is the position of the Examiner "that one of ordinary skill in the art would have been sufficiently motivated to add a moisture barrier agent to the base paper or to the coating agent composition for the art recognized benefit of excluding water moisture or providing barrier properties as claimed." This is clearly incorrect, as SUZUKI actually suggests that an additional sizing agent is not needed with its disclosed compositions and methods.

Indeed, the portion of SUZUKI relied upon in the rejection is taken out of context. Put into proper context (with certain composition details omitted), it is written:

Since, in general, newsprint base paper contains large amounts of mechanical pulp, it is very high in water absorptivity. Therefore, coating color such as the surface treating agent is liable to penetrate into the paper, and it is difficult to evenly coat a small coating amount.

However, the polyacrylamide-based compound of the present invention . . . is very good in retention on the base paper surface.

SUZUKI at col. 11, lines 13-28 (emphasis added). Thus, it is seen that SUZUKI is stating that their inventive composition coats well, *regardless* of the absorptivity of the base newsprint. That is, the portion of SUZUKI relied upon in the Office Actions actually suggests that it would be unnecessary to add sizing agents to the base newsprint, and provides no rationale or motivation to add a sizing agent to the coating composition.

As previously argued, SUZUKI is directed toward coating compositions containing a polyacrylamide-based compound and a vinyl acetate/maleic acid half ester, and specifically toward use of the compositions as coatings for newsprint. The SUZUKI compositions can contain other ingredients, such as latexes as binders, as disclosed in column 9. The rejection also points to column 10 for the proposition that the SUZUKI compositions can contain reactive sizes such as AKDs. However, this list of materials at columns 9 and 10 is merely a broad listing of permitted materials. SUZUKI does not provide any motivation, reason, or purpose, for employing any of these materials in the SUZUKI compositions and methods. SUZUKI provides no motivation to one having ordinary skill in the art to pick and choose from amongst these ingredients to arrive at the subject matter included in Applicants' claims.

This is further demonstrated upon review of the SUZUKI examples. The examples of SUZUKI employ a base newsprint with no internal size, and comprising nothing but de-inked pulp (DIP), thermomechanical pulp (TMP), and kraft pulp (KP) (col. 11, lines 44-49; col. 9, lines 55-61). SUZUKI prepares 28 coating compositions and applies them to newsprint. None of the 28 compositions comprise a sizing agent (col. 14, lines 9-19). Even though neither the base newsprint nor the coating compositions comprise any sizing agent, SUZUKI reports good surface strength and peeling strength results from the inventive compositions.

Further, Applicants draw the Examiner's attention to column 10, beginning at line 7, where SUZUKI states that the reactive size may be part of the base newsprint. Nowhere does SUZUKI disclose or suggest that a reactive sizing agent can be part of the aqueous coating composition. The portion of SUZUKI the rejection relies upon for teaching reactive sizes such as AKDs merely states that the newsprint to be coated with the compositions are permitted to comprise a host of other ingredients, among which are included fillers, strength agents, freeness/yield improvers, sizing agents and other agents. Thus, at most, this is merely a teaching that the SUZUKI aqueous compositions may be used to coat newsprint that has been previously sized.

It is respectfully submitted, therefore, that SUZUKI would not motivate the person of ordinary skill in the art to add a component (C) as recited in Applicants' claims to the SUZUKI coating compositions. Moreover, it is also respectfully submitted that the person of ordinary skill in the art would not consider the presently-claimed compositions or



methods to be taught or suggested by SUZUKI. For at least the above reasons, the rejection does not establish a prima facie case of obviousness.

If the rejection under 103(a) is maintained with respect to any pending claim, then Applicants respectfully request the Examiner to indicate where SUZUKI affirmatively suggests the advisability of including the presently recited component (C).

***Applicants Have Shown Unexpected Results Sufficient to Overcome an Obviousness Rejection***

Even had the rejection established a prima facie case of obviousness (which Applicants maintain is not the case), the claimed compositions and methods of the present invention yield unexpected results sufficient to rebut a prima facie case of obviousness. In this regard, In re Soni, 34 USPQ2d 1684, 1687-1688 (Fed. Cir. 1995), held that a showing of substantially improved results for invention, and a statement that results were unexpected suffices to establish unexpected results absent evidence to the contrary. Id. at 1687-88.

In this case, the specification states that compositions and methods of the present invention have properties that are:

more favorable than that which would be expected to be supplied by each component, separately, particularly in view of the fact that the resultant composition exhibits positive aspects of each of the components, while certain negative aspects that would be expected by use of each component, separately, are not exhibited.

(Disclosure at page 35, lines 1-6). Therefore, since the specification discloses unexpected and improved results, this case involves patentable subject matter just as In re Soni

involved a patentable invention. Accordingly, all pending claims should be found patentable over SUZUKI.

If the rejection under 103(a) is maintained with respect to any pending claim, then the Examiner is respectfully requested to explain why the above does not constitute unexpected and improved results sufficient to overcome the rejection.

***SUZUKI Does Not Disclose or Suggest Compositions Comprising Fluoacids, or Methods of Using Fluoacids***

Pending claims 22, 23, 26-31, 40-43, 62, 63-69, 98-106, 108-115, 117 and 118 all recite fluoacid as a limitation to the recited compositions or methods. SUZUKI does not disclose or suggest compositions comprising a fluoacid, nor does SUZUKI disclose or suggest use of such a composition. Despite Applicants' arguments, neither the July 18, 2005 Office Action, nor the December 20, 2005, Office Action address this limitation of the above-noted claims. The Office Action provides absolutely no documentary evidence relating to these limitations.

At least because there is nothing in SUZUKI that discloses or suggests compositions comprising fluoacid, or methods of using compositions comprising fluoacids, claims 22, 23, 26-31, 40-43, 62, 63-69, 98-106, 108-115, 117 and 118 are patentable over SUZUKI.

If this rejection is maintained, then Applicants respectfully ask the Examiner to identify where SUZUKI discloses or suggests fluoacids or their use.

***SUZUKI Does Not Disclose or Suggest Coated Metal Substrates, Methods of Coating Metal Substrates, or any Substrates Other than Newsprint***

The rejection asserts that SUZUKI discloses a newsprint paper coated with a surface treating agent comprising at least one water-soluble component comprising at least one functional group that undergoes a cross-linking reaction, such as a polyacrylamide-based compound; and at least one film-forming polymer such as vinyl acetate/maleic acid half ester copolymer. The rejection asserts that SUZUKI teaches that the composition may further contain various ingredients including latexes and reactive sizing agents such as AKD and alkylsuccinic anhydride, which is asserted to be the same as component C) in the presently claimed composition. Thus, the rejection asserts that it would have been obvious to prepare and use the presently-claimed composition for paper. It is the position in the rejection that other substrates that SUZUKI does not disclose would be well within the skills of the ordinary practitioner, and hence would have been obvious.

It is respectfully submitted that the rejection employs an incorrect criterion. Whether or not the other substrates would have been within the skill of the ordinary practitioner is irrelevant. The appropriate question is whether the cited document provides motivation to use the composition with the other substrates. The rejection does not identify any motivation from within SUZUKI, but merely makes an unsupported conclusory assertion that it would have been obvious.

Pending claims 26-31, 41-43 are directed toward coated metal substrates, and claims 64-69, 98-106, 108-115, 117 and 118 are directed toward methods of coating metal substrates. SUZUKI does not disclose or suggest such substrates or methods at least for

the reason that SUZUKI explicitly limits itself to use with newsprint, a substrate completely different from metal.

Pending claims 34, 35, 46 are directed toward ceiling tiles and non-woven products, and claims 96 and 97 are directed toward methods of preparing such products. SUZUKI does not disclose or suggest such products or methods at least for the reason that, SUZUKI explicitly limits itself to use with newsprint, a product completely different from ceiling tiles and non-woven products.

That SUZUKI explicitly limits itself to coating compositions for newsprint paper can be seen, for example, from the title ("Newsprint Paper"), the abstract ("A newsprint paper coated with . . . "), the summary of the invention ("The above object is attained by a newsprint paper coated on the surface with a surface treating agent comprising a polyacrylamide-based compound and a vinyl acetate/maleic acid half ester copolymer.") (column 2, lines 62-65), and numerous other places, including column 3, through line 40. Thus, SUZUKI provides absolutely no motivation to use the compositions on any substrate other than newsprint. In particular, SUZUKI provides absolutely no motivation to use the composition on metal substrates. Thus, SUZUKI does not teach or suggest the subject matter recited in numerous other dependent and independent claims.

Yet further in this regard, for at least the above reasons, SUZUKI does not teach or suggest a method for forming a substantially chromium-free, dried in place conversion coating on a metal surface comprising applying to a metal surface: (1) an aqueous composition comprising (A) at least one water-soluble component comprising at least one functional group that undergoes a crosslinking reaction; (B) at least one film-forming

polymer; and (C) at least one component which provides at least one of moisture barrier properties and/or vapor barrier properties greater than that provided by a combination of components (A) and (B) alone; and (2) fluoacid, wherein the amount of the composition in (1) is from about 0.1 to about 90% by weight, and wherein the amount of fluoacid is from about 0.2 to about 20% by weight, as recited in independent claim 98, and in claims 99-106, 108-115, 117 and 118 that depend directly or indirectly from claim 98.

If this rejection of any of claims 26-31, 41-43, 64-69, 98-106, 108-115, 117 and 118 is maintained, then Applicants respectfully ask the Examiner to identify where SUZUKI discloses or suggests coated metal substrates or methods of coating metal substrates, and to identify where SUZUKI teaches or suggests a method for forming a substantially chromium-free, dried in place conversion coating on a metal surface.

If the rejection of any of claims 34, 35, 46, 96 and 97 is maintained, then the Examiner is requested to identify where SUZUKI discloses or suggests ceiling tiles or non-woven products.

***SUZUKI Does Not Disclose or Suggest the Presently-Recited Amounts and Proportions of Ingredients***

Further, the rejection does not state where presently recited proportions are taught or suggested by SUZUKI. Applicants respectfully submit that SUZUKI does not teach or suggest Applicants' composition, and, therefore, cannot teach or suggest the respective proportions of ingredients presently recited. SUZUKI only makes a broad general statement about sizing agents being acceptable in the base paper, and certainly does not teach or suggest the proportions of (A) and (B) to (C) recited at least in dependent claims

19, 21, 23, 29-31, 39-46, 60, 61, 63, 67-69, 90, 91, 94-97, 112, 113, and 118. Thus, for at least this additional reason, these claims are also patentable over SUZUKI.

If the rejection of any of claims 19, 21, 23, 29-31, 39-46, 60, 61, 63, 67-69, 90, 91, 94-97, 112, 113, and 118 is maintained, then Applicants respectfully request the Examiner to identify where SUZUKI discloses or suggests the presently-recited amounts and proportions of components (A), (B) and (C).

***SUZUKI Does Not Disclose or Suggest the Presently-Recited Epoxy or Azetidinium Functional Groups***

Yet further, the rejection also does not state where SUZUKI discloses or suggests that the functional group of component (A) that undergoes the crosslinking reaction comprises at least one of epoxy or azetidinium. It is respectfully submitted that SUZUKI does not teach or suggest these functional groups, such that any claims reciting this limitation are not obvious in view of SUZUKI for this additional reason. This is a limitation at least of claims 6, 52, 82 and 106. The Office Action provides absolutely no documentary evidence relating to these limitations.

If the rejection of any of claims 6, 52, 82, and 106 is maintained, then Applicants respectfully request the Examiner to identify where SUZUKI discloses or suggests the presently-recited epoxy or azetidinium groups on component (A).

***SUZUKI Does Not Disclose or Suggest Paint Compositions***

Because SUZUKI is limited to coating compositions for newsprint paper, the document does not teach or suggest other presently-recited compositions, such as paints,

as recited in claim 37. The Office Action provides absolutely no documentary evidence relating to this limitation.

If the rejection of claim 37 is maintained, then the Examiner is respectfully requested to indicate where SUZUKI discloses or suggests that its disclosed compositions include paints.

### **CONCLUSION**

For at least the above reasons, SUZUKI does not teach or suggest an aqueous composition comprising (A) at least one water-soluble component comprising at least one functional group that undergoes a crosslinking reaction; (B) at least one film-forming polymer; and (C) at least one component which provides at least one of moisture barrier properties and/or vapor barrier properties greater than that provided by a combination of components (A) and (B) alone, as recited in independent claim 1, and in claims 2-6, 8-11, 15, 16, 18, 19, and 21-46 that directly or indirectly depend from claim 1.

Similarly, SUZUKI does not teach or suggest a method of preparing a coated substrate which comprises (1) coating a substrate with a coating composition comprising: (A) at least one water-soluble component comprising at least one functional group that undergoes a crosslinking reaction; (B) at least one film-forming polymer; and (C) at least one component which provides at least one of moisture barrier properties and/or vapor barrier properties greater than that provided by a combination of components (A) and (B) alone; and (2) curing the coating composition on the substrate, as recited in claim 47, and in claims 48-52, 54-56, and 58-71 that depend directly or indirectly from claim 47.

Further, for at least the above reasons, SUZUKI does not teach or suggest a method of preparing cellulosic products which comprises: substantially simultaneously or sequentially adding a composition to a system comprising a cellulosic slurry or suspension, the composition comprising: (A) at least one water-soluble component comprising at least one functional group that undergoes a crosslinking reaction; (B) at least one film-forming polymer; and (C) at least one component which provides at least one of moisture barrier properties and/or vapor barrier properties greater than that provided by a combination of components (A) and (B) alone, as recited in independent claim 77, and claims 78-82, 84, 86, and 88-97 that depend directly or indirectly from claim 77.

Yet further, for at least the above reasons, SUZUKI does not teach or suggest a method for forming a substantially chromium-free, dried in place conversion coating on a metal surface comprising applying to a metal surface: (1) an aqueous composition comprising (A) at least one water-soluble component comprising at least one functional group that undergoes a crosslinking reaction; (B) at least one film-forming polymer; and (C) at least one component which provides at least one of moisture barrier properties and/or vapor barrier properties greater than that provided by a combination of components (A) and (B) alone; and (2) fluoacid, wherein the amount of the composition in (1) is from about 0.1 to about 90% by weight, and wherein the amount of fluoacid is from about 0.2 to about 20% by weight, as recited in independent claim 98, and in claims 99-106, 108-115, 117 and 118 that depend directly or indirectly from claim 98.

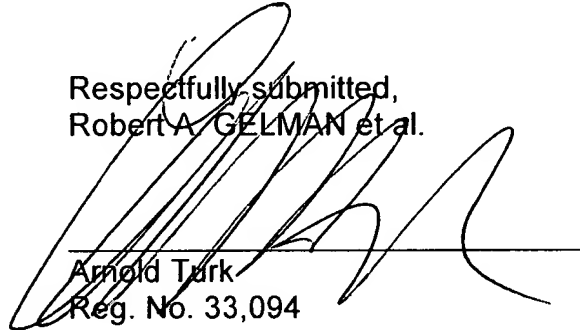
For the reasons advanced above, Applicants respectfully submit that all pending claims patentably define Applicants' invention. Allowance of the application with an early



mailing date of the Notices of Allowance and Allowability is therefore respectfully requested.

Should the Examiner have any further comments or questions, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Respectfully submitted,  
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